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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,151	08/27/2003	Gregory Frank Carlson	10030414-1	7046

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EXAMINER

LAM, CATHY FONG FONG

ART UNIT	PAPER NUMBER
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1775

DATE MAILED: 06/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/650,151

Applicant(s)

CARLSON ET AL.

Examiner

Cathy Lam

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10,12,13 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10,12,13 and 22-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08-27-2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

In view of the amendment and remarks filed on January 27th 2006, the objection and 112 rejections have been withdrawn. The pending claims however continue to be unpatentable as following:

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the structure of the (first set) ridges with a first portion of a first height and a second portion of a second height. The figures also do not show any wells which forms respective intersections of the first and second sets of the ridges as described in the claims and specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. Claims 1, 28 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 28 and 29 are structurally indefinite, as it is unclear what “....., at least one of the ridges having a first portion of a first height and having a second portion of a second height”, “at least one of the ridges having a first height and at least another one of the ridges having a second height” and “at least one ridge in the second set having a height that is different than a height of a ridge in the first set” are referring? Clarification is required.

Claim Rejections - 35 USC § 103

3. Claims 1-10, 12-13, 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen et al (US 6468638) in view of Verlinden (US 6861136).

Due to the structure of claims 1, 28 & 29 are unclear, with respect to the prior art rejections below, the claims will be given the broadest possible interpretation in view of the specification.

Jacobsen disclose an electronic assembly comprised of a substrate (12), row/column interconnecting lines and a plurality of blocks (14) (col 2 L 15-19). The electronic assembly is particularly useful as a transistor (col 2 L 4-5).

Recesses or holes are formed in the substrate before the blocks are formed onto the substrate (col 6 L 28-34). The blocks may each contain a circuit component (col 2 L 11-16, L 45-47 & col 5 L 23-24).

The blocks (14) are deposited onto the substrate (12) through FSA (or fluidic self assembly) process that is a fluid transporting process such that the blocks rest in the corresponding openings in the substrate (12) (col 2 L 55-60 & col 6 L 48-49). The examiner takes the position that the FSA process resembles a chemical treatment that limit the sizes of the blocks.

An interconnecting layer is deposited over the substrate and the blocks to make electrical connection through conductive holes (col 6 L 48-53). The interconnecting layer can be a wiring pattern (ie. row and/or column interconnecting lines or the fine/gross interconnects) (col 6 L 63-64). The blocks that include circuit elements drive a picture element (or a display) (col 6 L 48-51).

Jacobsen teaches that the interconnecting layer which later formed interconnecting lines, used for connecting the blocks, is a conductive polymer or a conductive organic compound (col 6 L 55-58, col 8 L 59- col 9 L 4, Fig. 8C).

Jacobsen teaches the present invention but is silent about using a conductive polymer to form the dots in the wells.

Verlinden teaches a laminate structure having ridges formed on a substrate surface. The ridges are filled with an organic conductive polymer such as poly(p-phenylenevinylene) (col 8 L 6-10).

In view of the prior art teachings, one skill in the art would choose poly(p-phenylenevinylene) or a suitable conductive polymer that derived from PPV because PPV is a commonly picked electroluminescent material (col 8 L 22-30).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy Lam whose telephone number is (571) 272-1538. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Cathy Lam
Primary Examiner
Art Unit 1775

cfl
June 8, 2006